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UNITED STATES DISTRICT COURT  
DISTRICT OF WYOMING

SIERRA CLUB and WYOMING OUTDOOR COUNCIL,	)
	)
	)
Plaintiffs,	)
	)
v.	) Case No. 07-CV-042-J
	)
PACIFICORP	)
	)
Defendant.	)

**PLAINTIFFS' PROPOSED FINDINGS OF FACT  
AND CONCLUSIONS OF LAW REGARDING  
THEIR MOTION FOR PARTIAL SUMMARY JUDGMENT TO ESTABLISH  
DEFENDANT'S LIABILITY FOR OPACITY VIOLATIONS**

Plaintiffs Sierra Club and Wyoming Outdoor Council (“plaintiffs”) respectfully submit their proposed findings of fact and conclusions of law regarding their motion for partial summary judgment to establish PacifiCorp’s liability for opacity violations at the Jim Bridger power plant in Sweetwater County, Wyoming.

A. Findings of Fact.

1. PacifiCorp’s Jim Bridger plant is located at Point of Rocks, Wyoming, approximately twenty-six miles east of Rock Springs, Wyoming. Jim Bridger consists of four coal-fired electrical generating units. Units 1-3 have nameplate capacities of 578 megawatts (“MW”) each and Unit 4 has a nameplate capacity of 561 MW. Answer, ¶¶13 & 14.

2. PacifiCorp is the operator and majority owner of Jim Bridger. Answer, ¶12.

3. The discharge of air pollutants from Jim Bridger is regulated by air pollution “operating permits” issued by DEQ. PacifiCorp is the named permittee in DEQ Operating Permit No. 30-120-2 for Jim Bridger dated October 29, 2001. Answer, ¶12; **Exhibit B.** PacifiCorp is the named permittee in DEQ Operating Permit No. 31-120-1 for Jim Bridger dated June 14, 2004. Answer, ¶12; **Exhibit C.** Finally, PacifiCorp is the named permittee in DEQ Operating Permit No. 3-1-120-2 for Jim Bridger dated September 6, 2005. Answer, ¶12; **Exhibit D.** Each of the operating permits referenced above are collectively referred to herein as the “Operating Permits.” PacifiCorp did not

appeal any of the Operating Permits after each was issued by DEQ. Answer, ¶32.

4. Pursuant to each of the Operating Permits, “[a]ll terms and conditions of the permit[s], except those designated as not federally enforceable, are enforceable by EPA and citizens under the Act.” Answer, ¶33; **Exhibits B, C and D**, p.1. PacifiCorp has responsibility for maintaining compliance with Jim Bridger’s Operating Permits. Answer, ¶12.

5. Condition (F6)(a)(iii) in PacifiCorp’s Operating Permits prohibits the emission of visible pollutants from Jim Bridger Units 1-3 that exhibit greater than 20 percent opacity on a six-minute average basis, except that one two-minute reading per hour may be no more than 40 percent opacity. **Exhibits B, C and D**, p. 6.

6. The 20 percent opacity limit applicable to Jim Bridger Units 1-3 has applied at all times between October 1, 2001 and the date of this motion. **Exhibits B, C and D**, p. 1.

7. Condition (F6)(c) in PacifiCorp’s Operating Permits prohibits the emission of visible pollutants from the outlet of the electrostatic precipitator at Jim Bridger Unit 4 in excess of 30 percent opacity on an hourly average basis. **Exhibits B, C and D**, pp 6-7.

8. The 30 percent opacity limit applicable to Jim Bridger Unit 4 has applied at all times between October 1, 2001 and the date of this motion. **Exhibits B, C and D**.

9. The opacity of emissions from Jim Bridger Units 1-4 is monitored and

recorded on a continuous basis by continuous opacity monitors (COMs). Answer, ¶47.

The opacity data from COMs in the stacks at Jim Bridger Units 1-3 is reported in six-minute averages; the opacity data from the COM at the outlet of the electrostatic precipitator at Jim Bridger Unit 4 is reported in one-hour averages. Answer, ¶47.

10. A COM scientifically determines opacity by passing a beam of light through the exhaust from one side of the smokestack to the other. The less light that makes it to a sensor on the other side, the greater the opacity of emissions. 40 C.F.R. Part 60, App. B, Spec. 1. According to EPA, “[t]ransparent stack emissions that do not attenuate light will have an opacity of zero percent. Opaque stack emissions that attenuate all of the visible light will have a transmittance of zero percent or an opacity of 100 percent.” *Id.*

11. The COMs that measure the opacity of emissions from Jim Bridger are located and certified consistent with the requirements found at 40 C.F.R. § 60, App. B, Performance Specification 1. Answer, ¶ 49.

12. The opacity data from the COMs are retained in a computer at Jim Bridger. Answer, ¶ 50.

13. Pacificorp submits quarterly excess emission reports (“EERs”) to DEQ that are required to identify, for each calendar quarter, all periods of time in which the opacity of pollution discharged by Jim Bridger exceeded the applicable opacity limit in the Operating Permits. Pacificorp admits the EERs speak for themselves. Answer, ¶54.

14. Data from PacifiCorp's own COMs at Jim Bridger, as reported in the EERs, show that emissions from Units 1-3 have exceeded 20 percent opacity on a six-minute average, PacifiCorp's permit limit for these units, every calendar quarter over the last five years. **Exhibit E.** Data from PacifiCorp's COMs as reported in the EERs also show that emissions from Unit 4 regularly exceed 30 percent on an hourly average, PacifiCorp's permit limit applicable to Unit 4. *Id.*

15. Emissions from Jim Bridger Units 1-4 have exceeded the applicable opacity permit limits thousands of times in the last five years. **Exhibit E;** Jim Bridger Units 1-3 and Unit 4 Opacity Violation Summaries, **Exhibits F and G.**

16. PacifiCorp has certified as true, accurate, and complete the opacity data set forth in its EERs. For example, see **Exhibit E**, Fourth Quarter 2001 Report, p. 3.

17. From October 1, 2001 through September 30, 2006, PacifiCorp exceeded the 20 percent, six-minute average opacity limit applicable to Units 1-3 at least 8,767 times. Jim Bridger Units 1-3 Opacity Violation Summary, **Exhibit F.**

18. From October 1, 2001 through September 30, 2006, PacifiCorp exceeded the 30 percent, one-hour average opacity limit applicable to Unit 4 at least 533 times. Jim Bridger Unit 4 Opacity Violation Summary, **Exhibit G.**

19. "Emergency" and "Abnormal Conditions and Equipment Malfunction" are the only exceptions to the opacity limits applicable to Units 1-4 set forth in PacifiCorp's Operating Permits. Conditions (G17) and (G21), **Exhibit B**, p. 24; **Exhibit**

**C**, p. 25, **Exhibit D**, pp. 26-27.

20. To establish the affirmative defense of an emergency, abnormal condition or equipment malfunction, PacifiCorp must demonstrate that it provided notice to DEQ of such an event within 24 hours. Conditions (G17) and (G21), **Exhibit B**, p. 24; **Exhibit C**, p. 25, **Exhibit D**, pp. 26-27.

21. During the period from October 1, 2001 through September 30, 2006, PacifiCorp did not provide notice to DEQ that any of its excess opacity periods were caused by an emergency, abnormal condition or equipment malfunction. **Exhibit E**. In fact, in each of its EERs for this period, for each unit, PacifiCorp affirmatively stated that “0” minutes of “excess emission events” were “due to emergency/abnormal operations.”

**Exhibit E.**

22. PacifiCorp’s Operating Permits do not describe an exception to the 20 percent opacity limit applicable to Jim Bridger Units 1-3 for any of the following conditions: (1) chemical composition of the flyash producing high resistivity in the ash, (2) one precipitator gas path out of service for maintenance, (3) temporary boiler draft excursion caused by unit load change, (4) boiler draft excursions caused by adjusting pulverizers, fans, sootblowers, and air horns, (5) flue gas SO<sub>3</sub> conditioning system out of service, (6) operating precipitator rappers continuously to remove ash deposits, (7) gas path field or fields out of service for maintenance, (8) opacity spikes, cause unknown, (9) draft excursion caused by ash collecting system, (10) air frozen causing poor atomization

in fuel oil burners, (11) boiler chemical clean, turbine off-line, ignitors on for temperature control during boiler clean, (12) unit in startup mode, boiler draft system on, oil fuel firing, (13) unit in shutdown mode, draft system on for boiler cool down, no fuel firing, precipitator offline, (14) temporary boiler draft excursion caused by gas path being put in, or taken out of service, (15) loss of power to precipitator controls, (16) low stack temperature, suspect moisture interference probable cause, and (17) suspect oil coating of precipitator internals from boiler startup, rapping precipitator to remove coating and buildup. Answer, ¶ 39; **Exhibits B, C and D.**

23. PacifiCorp's Operating Permits do not describe an exception to the 30 percent opacity limit applicable to Jim Bridger Unit 4 for any of the following conditions: (1) chemical composition of the flyash producing high resistivity in the ash, (2) one precipitator gas path out of service for maintenance, (3) temporary boiler draft excursion caused by unit load change, (4) boiler draft excursions caused by adjusting pulverizers, fans, sootblowers, and air horns, (5) flue gas SO<sub>3</sub> conditioning system out of service, (6) operating precipitator rappers continuously to remove ash deposits, (7) gas path field or fields out of service for maintenance, (8) opacity spikes, cause unknown, (9) draft excursion caused by ash collecting system, (10) air frozen causing poor atomization in fuel oil burners, (11) boiler chemical clean, turbine off-line, ignitors on for temperature control during boiler clean, (12) unit in startup mode, boiler draft system on, oil fuel firing, (13) unit in shutdown mode, draft system on for boiler cool down, no fuel

firing, precipitator offline, (14) temporary boiler draft excursion caused by gas path being put in, or taken out of service, (15) loss of power to precipitator controls, (16) low stack temperature, suspect moisture interference probable cause, and (17) suspect oil coating of precipitator internals from boiler startup, rapping precipitator to remove coating and buildup. Answer, ¶44; **Exhibits B, C and D.**

24. The opacity readings at Jim Bridger have been recorded at well over twice the legal limit. For example, on March 15, 2006, PacifiCorp reported that the opacity of emissions from Unit 2 exceeded 57 percent. **Exhibit E**, 2006, First Quarter.

B. Conclusions of Law

1. Condition (F6)(a)(iii) in each of PacifiCorp's Operating Permits prohibits the emission of visible pollutants from the smoke stacks of Jim Bridger Units 1, 2 and 3 that exhibit greater than 20 percent opacity. **Exhibits B, C and D**, p. 6. According to condition (F6)(a)(iii):

Emissions from boilers 1, 2 and 3 (Sources 1 through 3) shall be limited to . . . no greater than 20 percent opacity of visible emissions, except that 40 percent opacity shall be permitted for not more than two minutes in any hour.

*Id.*

2. Condition (F6)(c) in each of PacifiCorp's Operating Permits prohibits PacifiCorp from discharging from Jim Bridger Unit 4 pollution with an opacity greater than 30 percent on an hourly average as measured at the outlet of the electrostatic

precipitator. **Exhibit B**, p. 6; **Exhibit C**, p. 7; **Exhibit D**, p. 6. According to condition (F6)(c):

Emissions from the outlet of the boiler 4 electrostatic precipitator shall not exceed an hourly opacity standard of 30 percent as measured by a continuous opacity monitoring system.

*Id.*

3. Pursuant to the Clean Air Act at 42 U.S.C. § 7661a(a), “[a]fter the effective date of any permit program approved or promulgated under this subchapter, it shall be unlawful for any person to violate any requirement of a permit issued under this subchapter.” Wyoming’s operating permit program was approved by EPA on February 22, 1999. 64 Fed. Reg. 8523 (Feb. 22, 1999).

4. PacifiCorp’s Operating Permits for Jim Bridger state, “[a]ll terms and conditions of the permit, except those designated as not federally enforceable, are enforceable by EPA and citizens under the Act.” **Exhibits B, C and D**, p. 1.

5. The 20 and 30 percent opacity limits in PacifiCorp’s Operating Permits are an “emission standard or limitation” as defined in the Clean Air Act at 42 U.S.C. §7604(f)(1), (3), and (4), can be enforced by plaintiffs in this action pursuant to the Clean Air Act’s citizen suit provision at 42 U.S.C. § 7604(a)(1).

6. Pursuant to condition (F16)(d) in PacifiCorp’s operating permit No. 30-120-2, after October 1, 2001, PacifiCorp is required to monitor the opacity of emissions discharged from the stacks of Units 1-3 on a continuous basis. **Exhibit B**, p. 10. The

requirement to monitor the opacity of emissions from the stacks of Units 1-3 was carried forward in operating permits 31-120-1 and 3-1-120-2 in condition (F19)(d)(i). **Exhibits C and D**, p. 10.

7. Pursuant to conditions (F6)(c) and (F16)(e) in PacifiCorp's operating permit 30-120-2, PacifiCorp is required to monitor the opacity of emissions discharged from the outlet of the electrostatic precipitator at Jim Bridger Unit 4 on a continuous basis. **Exhibit B**, pp. 6-7; 10. The requirement to monitor the opacity of emissions discharged from the outlet of the electrostatic precipitator at Jim Bridger Unit 4 was carried forward in Operating Permits 31-120-1 and 3-1-120-2 in conditions (F6)(c) and (F19)(d)(ii). **Exhibits C and D**, pp. 6-7; 10.

8. Pursuant to PacifiCorp's operating permit 31-120-1, condition (F29) and (NSPS-D4), **Exhibit B**, pp. 12, 16, and PacifiCorp operating permits 3-1-120-1 and 3-1-120-2, condition (F37) and (P60-D4), **Exhibits C and D**, pp. 13, 16-17, PacifiCorp is required to submit on a quarterly basis a written report to DEQ ("EERs") that discloses each period of time in which emissions of pollutants discharged from Jim Bridger Units 1-4 exceeded the applicable opacity standard.

9. Condition (G4) in PacifiCorp's Operating Permits also requires the company to certify that the opacity data in its EERs is "true, accurate and complete." **Exhibit B**, p. 21; **Exhibit C**, p. 22; **Exhibit D**, p. 24. The obligation to submit true and complete self-monitoring results is necessary to the effective implementation and

enforcement of the Wyoming Quality Act and the Clean Air Act. 42 U.S.C. § 7661c(c) and WAQSR Ch. 6, Section 3(c)(iv).

10. Any person who submits false or inaccurate monitoring data is subject to criminal penalties. Pursuant to Article 9 of the Wyoming Environmental Quality Act:

Any person who knowingly makes any false statement, representation or certification in any application, record, report, plan or other document filed or required to be maintained under this act or who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this act, shall upon conviction, be fined not more than ten thousand dollars (\$10,000.00) per day for each violation or imprisoned for not more than one (1) year, or both.

Wyo. Stat. § 35-11-901(k).

11. The Clean Air Act provides for criminal penalties for making “any false material statement, representation, or certification in . . . any notice, application, record, report, plan, or other document required pursuant to this chapter. . . .” 42 U.S.C. § 7413(c)(2)(A). *United States v. Louisiana Pacific Corp.*, 908 F. Supp. 835, 840 (D. Colo. 1995), app. dismissed, 106 F.3d 345 (10th Cir. 1997) (criminal prosecution involving false opacity reporting under the Clean Air Act).

12. Because PacifiCorp is required by law to determine and report the opacity of its air pollutant emissions on a continuous basis, reports that show opacity readings in excess of permit limits can be used to demonstrate PacifiCorp’s liability for violations.

*St. Bernard Citizens for Envt'l Quality, et al. v. Chalmette Refining, L.L.C.*, 354 F.Supp. 2d 697, 706-707 (E.D. La. 2005); *Sierra Club v. Public Service Company of Colorado*,

*Inc.*, 894 F. Supp. 1455, 1461 (D. Colo. 1995); *Friends of the Earth v. Potomac Electric Power Co.*, 419 F. Supp. 528, 533 (D.D.C. 1976). Similarly, in the Clean Water Act context, a defendant's water pollution monitoring results constitute admissions sufficient to establish liability. *U.S. v. Brittain*, 931 F.2d 1413, 1416 (10<sup>th</sup> Cir. 1991); *Atlantic States Legal Foundation v. Tyson Foods, Inc.*, 897 F.2d 1128, 1135 (11<sup>th</sup> Cir. 1990); *Sierra Club v. Simkins Industries, Inc.*, 847 F.2d 1109, 1115 n.8 (4<sup>th</sup> Cir. 1988); *Sierra Club v. Union Oil of California*, 813 F.2d 1480, 1492 (9<sup>th</sup> Cir. 1987); *U.S. v. Gulf States Steel, Inc.*, 54 F. Supp. 2d 1233, 1241 (N.D. Ala. 1999); *U.S. v. Smithfield Foods, Inc.*, 965 F. Supp. 769, 783 (E.D. Va. 1997); *U.S. v. Sheyenne Tooling & Mfg. Co., Inc.*, 952 F. Supp. 1420, 1421 (D.N.D. 1996); *United States v. CPS Chemical Co., Inc.*, 779 F. Supp. 437 (E.D. Ark. 1991); *Natural Res. Defense Council v. Texaco Refining*, 719 F. Supp. 281 (D.Del. 1989), *vacated, in part, on other grounds*, 906 F.2d 934 (3d Cir. 1990).

13. There is no genuine issue of material fact that PacifiCorp's continuous opacity monitor data demonstrates that PacifiCorp has violated the 20 percent opacity limit at Units 1-3. PacifiCorp's violations of the applicable six-minute, 20 percent opacity limit are set forth in PacifiCorp's EERs beginning with the fourth quarter of 2001 through the third quarter of 2006. **Exhibit E.** Opacity readings in excess of 20 percent on a six minute average are set forth in the column titled "Opacity Reading (6-minute Avg.)" in PacifiCorp's EERs applicable to Units 1-3. PacifiCorp's violations of the 20

percent opacity limit at Units 1-3, taken from the EERs in **Exhibit E**, are summarized in **Exhibit F**.

14. There is no genuine issue of material fact that PacifiCorp's continuous opacity monitor data demonstrates that PacifiCorp has violated the 30 percent opacity limit hundreds of times at Unit 4. PacifiCorp's violations of the hourly, 30 percent opacity limit are set forth in PacifiCorp's EERs beginning with the fourth quarter of 2001 through the third quarter of 2006. **Exhibit E**. Opacity readings in excess of 30 percent on an hourly average are set forth in the column titled "Maximum Opacity Reading (1-Hour Avg.)" in PacifiCorp's EERs applicable to Unit 4. PacifiCorp's violations of the 30 percent opacity limit at Unit 4, taken from the EERs in **Exhibit E**, are summarized in

**Exhibit G**.

15. PacifiCorp has violated the 20 percent opacity limit between October 1, 2001 and September 30, 2006 at Jim Bridger Units 1-3 on 8,767 occasions. **Exhibit F**, p.

16. PacifiCorp has violated the 30 percent opacity limit between October 1, 2001 and September 30, 2006 at Jim Bridger Unit 4 on 533 occasions.

17. According to PacifiCorp's Operating Permits at Condition (G17):

The permittee may seek to establish that noncompliance with a technology-based emission limitation under this permit was due to an emergency, as defined in Ch 6, Sec 3(l)(i) of the WAQSR. To do so, the permittee shall demonstrate the affirmative defense of emergency through properly signed, contemporaneous operating logs, or other relevant evidence that:

- (a) an emergency occurred and that the permittee can identify the cause(s) of the emergency;
- (b) the permitted facility was, at the time, being properly operated;
- (c) during the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards, or other requirements in this permit;
- (d) *the permittee submitted notice of the emergency to the Division within one working day of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken.*

**Exhibit B**, p. 24; **Exhibit C**, p. 25, **Exhibit D**, pp. 26-27 (emphasis added).

18. According to WAQSR Ch 6, Sec 3(l)(i), an “emergency” means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

19. To establish a defense of abnormal condition or equipment malfunction a similar 24-hour notice is required. According to Permit condition (G21):

Emissions in excess of established regulation limits as a direct result of malfunction or abnormal conditions or breakdown of a process, control or related operating equipment beyond the control of the person or firm owning or operating such equipment shall not be deemed to be in violation of such regulations, *if the Division is advised of the circumstances within*

*24 hours of such malfunction and a corrective program acceptable to the Division is furnished.*

**Exhibit B**, p. 24; **Exhibit C**, p 25; **Exhibit D**, p. 27 (emphasis added).

20. "Malfunction" is defined at WAQSR Chapter 5, Section 2(e)(i) as:

any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

21. To the extent PacifiCorp wanted to avail itself of the emergency, abnormal condition or equipment malfunction defense to excuse an excess opacity reading at Jim Bridger, it was required by its permits to submit a report to DEQ within 24 hours of such reading. Because PacifiCorp over the last five years did not claim that its excess opacity emissions at Jim Bridger at issue in this case were caused by emergency or malfunction, and in fact reported affirmatively at the end of each quarter that each of the excess opacity readings during that quarter were *not* the result of any emergency, abnormal condition or equipment malfunction, it may not now assert these defenses.

C. Order

It is therefore Ordered and Adjudged that plaintiffs' motion for partial summary judgment to establish PacifiCorp's liability for opacity violations at Jim Bridger is hereby granted.

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UNITED STATES DISTRICT JUDGE

Respectfully submitted,

DATED this 12<sup>th</sup> day of October, 2007.

SIERRA CLUB and WYOMING OUTDOOR  
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**CERTIFICATE OF SERVICE**

I HEREBY CERTIFY that on the 12<sup>th</sup> day of October, 2007, due to the inability of serving and filing electronically the foregoing due to the size of the exhibits, I caused to be sent via U.S. Mail a CD containing the PDF files of Plaintiffs' Combined Motion and Memorandum in Support of Summary Judgment, and related Exhibits, and Plaintiffs' Findings of Fact, Conclusions of Law to the following counsel of record:

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